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LIBERAL MENTAL CULTURE.—ITS RELATIONS TO LIFE'S DUTIES.

IN this utilitarian age and country there is a tendency to over-estimate everything calculated to promote the physical comforts of man, — to increase his wealth, to improve his house, to beautify his equipage, to minister to his ease or luxury, — and to undervalue a comprehensive, liberal intellectual culture. Hence it is thought by many, that a lad should be required to study that and that only which will fit him for the plough, the mechanic-shop, for shipboard, the counter, the ledger, or whatever post he is destined to occupy, and then he must be pressed into immediate service.

Only such toil is valued as will promise the most immediate fruits; and, as a boy with but little education will more readily and perhaps more accurately calculate a store bill, — a practice to which he has been habituated by the experience of months or years, — than the boy in the schools who has thoroughly studied an extended course of mathematics and metaphysics, familiarized himself with the natural sciences, and distinguished himself for linguistic attainments, the whole labor of the schools is pronounced wrong, the whole course of study erroneous, the whole theory of school discipline useless and worse than useless, wasting years of valuable time and rendering the mind unpractical, if not imbecile.

Now they who allow themselves to indulge such thoughts

cherish a double error; 1st. They are mistaken in fact; educated mind is the most skilful in a practical view: 2d. Man has a twofold nature, the intellectual and moral being transcendently more important than the physical.

Let the young man who has received a liberal education and graduated from one of our best colleges be placed in the counting-room or behind the counter, and he may at first be slow in his mercantile calculations, — his mind has been too long accustomed to follow the planets in their courses, to weigh the worlds as in balances, to hold communion with Nature and to converse with master spirits of the present and the past, to readily engage in the duties of his new station; but if he has heartily adopted mercantile pursuits as the business of life, a brief apprenticeship under favorable circumstances will enable him to discharge the duties of his station with greater ease and expedition than his fellow who has had more practice but less culture; and besides, he can stand upon a higher eminence, take in a broader prospect, and solve with greater facility and skill the problems of mercantile, social and civil life; and thus the educated man has the fairest prospect of securing to himself wealth and honor and ease and luxury. But, as was before said, man has an intellectual and moral nature, and whatever ministers to intellectual enjoyment and moral perfection is of priceless value.

It has been said of this life, —

“This is the bud of being, the dim dawn,
The twilight of our day, the vestibule.
Life's theatre as yet is shut, and Death,
Strong Death alone can heave the massy bar,
This gross impediment of clay remove,
And make us, embryos of existence, free.”

It has also been no less truthfully than poetically said of those who have passed the bourn of time, —

“They live, they greatly live a life on earth
Unkindled, unconceived;”

therefore what matters it, when one comes to lie down in death, whether he has a few hundreds or a few thousands more or less of this world's goods than his neighbor had when called to pay the debt of nature? That man is richest who, at death, can look

back upon the best spent life, and forward with the most assured and well-grounded hope of a future and eternal life of happiness.

The duty of the teacher, then, is clear. Let him in the first place secure as prolonged connection of each pupil with school as possible, and then let him give each such studies as, under existing circumstances, are best calculated for mental and moral discipline and growth.

Not unfrequently the pupil, catching the spirit of many of his seniors, will inquire, "What good will all this do me? Is it of any practical importance?" "Yes," the teacher should reply, "it is of vital importance that you so clothe your mind with strength that you can grapple with every practical problem of future life, and satisfactorily solve it. You ought not to consider yourself a machine, adjusted to the performance of a certain kind of work and unfit for everything else, and hence study that and that only which has a direct bearing upon the particular kind of work for which you, at present, think you have a fancy." These remarks are not aimed against *professional* study, but only against that spirit of many pupils,—a spirit not unfrequently fostered and encouraged by the parents of the pupils and by others,—to give up the pursuit of a particular study when it is found to be somewhat difficult, not very interesting, and having no very obvious bearing on a given course of life.

We know that to excel in any given department of life's duties it is necessary for one to give all his energies to that department. "Perfection,—the fruit of long and patient exercise,—was in such estimation among the ancients, that they gladly offered up to it the perishable laurels of universal knowledge, after which modern writers so zealously strive. The tragic poet scorned to lay hold on Homer's harp with an uncertain grasp, or, putting off the buskin, to walk carelessly over Thalia's stage. The epic bard did not seize the ivy which shaded the brow of the lyric poet. The historian was not solicitous to gain the reputation of a public orator; nor did the latter emulate the sages, who explained the problems of the universe on the banks of the Ilissus. Thus confining themselves with a wise moderation, and only anxious to stand firm in their position, they concentrated all the rays of their talent on one point, and scorned

not anything, even the least, if it could contribute to the perfection of a work of art. Therefore, after the lapse of ages, these works shine like never-setting stars, and gladden the world, and point the way, through the Syrtes of a corrupt taste, to the ideal of art." But in order that one may be able to bend all his energies successfully to one pursuit, it is absolutely essential that he first have a broad and deep foundation laid in general culture,—a foundation that cannot be laid in less time than that usually given to a preparatory and college course.

There may be exceptions to this general rule, as, for example, a man may be endowed by nature with certain qualities in a wonderful measure, and be almost an idiot in all else. In a neighboring State is a man who has originated and constructed nearly all the machinery in a very extensive manufacturing establishment, and who yet has scarcely sense enough to take care of himself. There may also be apparent exceptions in such men as Franklin, who excelled as a philosopher, and Washington, who was first in war and first in peace; but these men were endowed with rare abilities originally, and the circumstances in which they were placed for many long years proved sources of discipline such as few men have enjoyed; but even here we find Franklin laying the work of drafting the Declaration of Independence upon the more youthful but more scholarly Jefferson, and Washington defers to the well-trained and accomplished Hamilton. But these exceptions, or apparent exceptions, do not invalidate the rule, that eminence in any department is the result of special effort in that department, *based upon previous and liberal general culture.*

Another obvious and very important duty of the teacher is that of securing *definiteness of thought, the habit of accurate and nice discrimination*, on the part of his pupils. Especially is this important with reference to *young* scholars and those *commencing* a new branch of study. Not unfrequently young men enter our schools professing to have read several Latin and Greek authors, to have studied several books of Euclid, etc., but upon examination and subsequent trial it is found that they had better never have seen a classical book, and never have heard the word geometry. Their habits of study are so loose, their indefiniteness of

thought and habitual lack of thought are so firmly inwrought into their very nature, that it requires almost a creative energy on the part of the teacher to eradicate the wrong and engraft the right mode of study, and secure an accurate and thorough scholarship.

Now success in the study of any science depends upon the clearness with which the learner perceives the truths of that science, their relations to each other and to kindred sciences; hence it is desirable that the teacher present every truth in its proper place, and in clear, concise, unmistakable language. In most branches of study, especially in the mathematics, both pure and mixed, there are inherent difficulties which no text-book and no teacher can remove, which no scholar can overcome except by close, long-continued, patient thought; and for this very reason it is often best that a pupil be merely started in a given line of thought and then left, with an occasional suggestion, to follow out that course to its legitimate results. He is the best teacher who most clearly, briefly, and logically presents everything which it is desirable to present, and thus puts the learner in the best mental state to apply himself with pleasure and profit. Especially is this true in the more elementary branches. The scholar who is thoroughly grounded in the principles of arithmetic, who has there acquired habits of accuracy and discrimination, is seldom troubled with algebra, geometry, etc.

One's intellectual culture also affects his moral character. He who is loose and inaccurate in his mental perceptions, most likely will be equally loose in his statements of facts, and his whole character will be warped and the destiny of others will be affected by his want of accuracy.

Two drops of water, composed of the same elements and descending from the same cloud, may fall within an inch of each other, and yet one may pass by the Missouri and the Mississippi to the turbulent Atlantic, while the other, by the Columbia, finds its way to the tranquil Pacific. So two lads, endowed with like physical, mental and moral natures, may simultaneously commence life, and, under different regime, be more widely separated than the raindrops, in every characteristic of their being and destiny, when they fall into the great ocean of eternity, and

their course through life and their influence upon others will be no less diverse.

Then let the teacher look well to his influence, the style of thought he cultivates, the sentiments he cherishes and inculcates, for his responsibilities are great beyond determinate limits.

J. S. E.

THE STARS AND THE EARTH.

ASTRONOMY is a study of all our schools, yet it does not in ordinary students awaken much enthusiasm. To understand clearly the laws of the heavenly bodies, the rigid mathematical demonstrations by which they are proved, and their applications, requires too close and constant study for the gratification of most minds. Only the few who have given it this severe toil delight in the vastness of its truths, and are never weary in its investigations.

Yet astronomy now was not the astronomy of the ancients. With none of the aids of modern times, they could only look and speculate. In the infancy of the world, when man's chief employment was to tend the flocks from which he gained his subsistence, in his lonely watches the shepherd naturally gazed much and musingly on the bright stars ever looking down so familiarly upon him, and could not but associate them with earth and its inhabitants. Great heroes were assigned a place in the heavens, and imagined to be still watching the scenes of their old labors. Nor can we wonder that the belief should have been formerly so prevalent, that our destiny is connected with the stars—that our thread of fate is spun in the skies, where the wise can take our horoscope. Even Kepler, in comparatively modern times, so believed. Under the light of science, however, the stars have lost much of their dreamy mystery, and become quite matter-of-fact affairs. Astrology is a bygone creature of the imagination. Some have even doubted whether the stars are anything more than so many desert spheres, wandering through space for no other reason than that the Creator so willed it

"according to his good pleasure." Repulsive indeed is such an idea.

"There are more things in heaven and earth, Horatio,
Than are dreamed of in your philosophy."

No one of intelligence, of course, will reject the teachings of science; many an idea, warmly cherished in the past, has now, and will have, no place except in poetry; yet, after all, science has but removed a little farther off the boundary between the known and the unknown. Beyond the limit of the curtain, we, too, like the ancients, are fond of our dreams and speculations. We love to gaze on the stars, and indulge those strange thoughts, not always capable of expression. We love to believe the stars are inhabited. What kind of beings live there, — whether like ourselves or of a higher or lower grade — whether holy or doubly spotted with guilt — whether holding direct communion with their Creator or seeing Him dimly through a thick veil, we know not; but we are sure intelligences, whatever they may be, for some purpose must use them. In this age of spiritualism, when intercourse seems so close between the living and the dead, between the visible and the invisible, the material and the immaterial, very naturally the thought should fasten itself upon us, that the stars may have a closer connection with our own sphere than is generally supposed; and that if we must reject the idea of astrology, that they control our destiny, still we may believe they may be used as our aids to a higher and nobler state.

But the object of the writer, to which the above is perhaps a not very inapposite preface, is to call attention to a few thoughts contained in a little volume, by an anonymous English author, published some years ago, with an introduction by Rev. Thomas Hill, who himself needs no introduction to an American teacher. The volume, when published, attracted some notice, though by no means what it deserved. The writer of this article has several times suggested these thoughts to his pupils, and the bright glance of the eye has shown how strongly the mind was aroused to their contemplation. They give us an intelligible idea of some of the infinite attributes of that great Being in whose likeness we are made. We cannot doubt that men in another state of existence will progress, and these thoughts may also bring down

to our human comprehension ways in which, by means of the stars, this may be done.

Let the reader call to mind a few well known philosophical facts. We know that sound moves at the rate of about 1100 feet a second, or a mile in five seconds. If, then, a cannon were discharged twelve miles from us, we should hear the sound one minute after we saw the flash. In like manner, it is well known that light, though apparently instantaneous for all distances on the earth, is progressive, moving at the rate, in round numbers, of 200,000 miles a second. As we gaze on the moon, the ray of light that meets our eye left that satellite one second and a quarter ago. If a spot were to appear on the surface of the sun, we should not have the evidence to our eyes till the ray of light leaving at the instant had travelled over the intervening space, requiring eight minutes of time. Jupiter, when farthest, is about six times as far from us as the sun. An eclipse of one of his satellites, therefore, is not seen till fifty minutes after it has occurred. Were one of Herschel's moons blotted from existence, we should not know it till more than two hours had elapsed. From the estimated distance of the nearest fixed star, a ray of light from it requires more than three years to reach the earth. One of those little twinkling orbs that shines on us so pleasantly in a clear evening, may, for aught we know, years ago have been struck from existence, yet its last rays have not reached the earth.

These facts are well known to every student. Now reverse the picture, and regard the earth as the point to which observation is directed. Could we occupy a position 18,000 miles from the earth, we should hear the sounds that were impressed on the air one day ago. Were we to move still on, we should overtake the vibrations made longer and longer ago, till, by and by, we could hear the philippics of Demosthenes in all their original power. So an inhabitant of the moon, gazing upon the earth, sees now the ray that left the earth one second and a quarter ago; a dweller on the sun sees the ray that left the earth eight minutes ago — on Jupiter, fifty minutes ago — on the nearest fixed star, three years ago. The ray of light that told the flashes of the cannon at Waterloo, has just lighted that distant star; and far beyond

that, are travelling those beams that left our earth when the wise men worshipped the infant Saviour at Bethlehem ; and, farther on still, those rays which left the earth at the Creation are telling the news of the birth of a new planet.

These sounds are moving on, and will move on forever. No sound will be lost, no picture once formed will be blotted, more than the record of deeds done and thoughts imagined ; however insignificant, it still travels on in the immensity of space, distinct, identical, daguerreotyped, never to vanish.

Let the reader now attend to some of the conclusions to be drawn from these facts. As God is omnipresent, is at our own earth, at the most distant star, and everywhere, may it not give us an idea we can comprehend how the past may be ever present to Him, and a "thousand years" be literally and truly "as one day?" God here is seeing what is now taking place ; God at the sun is seeing what occurred here eight minutes ago ; God at Jupiter is witnessing what was done here fifty minutes ago ; and so on, in an eternity of space, are spread out before Him the pictures of existence, ever present. Can we not thus see how all things can in this way ever be before the eye of God? Without pursuing this subject farther in connection with the Deity, let it be brought down to our finite selves. Let God, as He may do, so increase our powers of vision, that, instead of being limited to a few miles, they take in all space. Add to this: let Him confer on man the power of willing himself with the rapidity of thought through immensity. Then if we wish to view the events which took place eight minutes ago, we can go to the sun ; if we would survey the death-bed of the great American statesman, when on the 24th of October, 1852, the mighty spirit of Daniel Webster took flight, the winged messenger is just telling the news to that distant star, and there can we go ; if we fly farther on, the flames that wrapped Cranmer at the stake meet our gaze ; on, and Peter the Hermit is calling the kings of Europe to the rescue of the Holy Sepulchre ; on, and the sad scenes of the Crucifixion are before us ; on, still on, to one twinkling orb after another, and we see Isaac at the altar, the Deluge, Cain and Abel, and the Creation with our first parents holy, in the happiness of those who commune with God face to

face. In like manner could be illustrated how every sound from the creation could be made clear to our hearing. Are not these ideas startling? Yet who shall say that we may not be so endowed in another state, and that the beings around God's throne may not thus continually be surveying the works of His hand!

What, then, is man now to what he may be? and what his present attainments to one glance at that picture which may one day be presented to his contemplation? How may we, when freed from the shackles which so confine our powers, increase in knowledge! The history of the whole world may be spread out before us; we may study what part we please, and for what time we please. Under the circumstances supposed, all the past will be an eternal present. How can we investigate Nature's most secret and mysterious manifestations? Many of her changes are too sudden for our too limited faculties to observe clearly. Changing our position so as to keep them ever before us, we can study for days the unfolding of the delicate flower, or the sudden flash of the electric fluid.

Many other thoughts are suggested in and by this little volume which it would too much lengthen this article to carry out. The "Stars and the Earth" must now be left with the reader.

W. C. T.

SOME FEATURES OF ATHENIAN ARCHITECTURE.

THE perfection of Athenian Architecture has been universally acknowledged; and nothing designed for the same general purpose, has ever equalled it in modern times. It has been copied, in whole or in part, in all the countries of Europe as well as in our own. While the general features of this architecture are understood, there are others of a less obvious character, which, though contributing much to the faultless symmetry of the Athenian Temples, until somewhat recently have been less fully known. As these indicate the delicate perceptions, and "traces of the most refined thought and subtle optical principles," as well as remarkable mathematical knowledge, among the Greeks, a brief reference to the subject is deemed not unsuitable for the "Teacher."

The principles referred to are the existence of certain delicate curves, or departures from right lines, in the Parthenon and other buildings of the best period of Grecian architecture, where we expect to find straight lines. The subject is first mentioned by Vitruvius, author of a work on architecture, about 50 B. C. From that time till 1837, no allusion is known to have been made to it. When the rubbish which had collected about the Parthenon, and prevented an examination of the lower parts, was removed by the Greek government in 1837, Mr. John Pennethorne, an English architect, detected the curvature in the stylobate or base. Though this gentleman communicated the facts which he had observed, in a pamphlet printed for private circulation, and though others had observed the same facts subsequently and published them, the subject was not fully investigated till 1846-7, when Mr. Francis Penrose, of Cambridge University, England, who had been engaged in the professional study of architecture, entered upon the work under the most favorable circumstances. Every facility which the Greek government could afford him for the prosecution of his researches was granted; and he was well supplied with delicate instruments, capable of indicating the slightest deviations from a straight line. More than six months were devoted to these investigations, most of them being confined to the Parthenon. By these researches the following results are well established:

1. The stylobate or base of the Parthenon and other Temples has a slight elevation from the extremities to the centre, *i.e.*, the point at the centre of either side or of either end is higher than the extremities. The line of the base is therefore a curved line. The entablature likewise presents curves nearly corresponding to those of the base, so that the centre of the entablature is higher than either of the extremities, both as it respects the ends and sides of the Temple. This deviation from a right line is not noticeable as the structure is ordinarily observed, or particularly as one stands opposite the side or end; but if the eye is brought to a level of the stylobate or entablature, and looks along the same, the deviation is readily detected. The design of this architectural arrangement is to correct what would appear a defect without it; for, if the stylobate were perfectly level, it would appear

to sag in the centre, and the entablature, if constructed without a curve, would show the same defect; and thus the beauty and symmetry would be impaired. In some cases, however, the entablature is curved, while the stylobate is not. This is the case in the Propylæa, the cause for which is supposed to be found in the peculiarity of its position.

2. In the larger columns, there is a delicate swelling or enlargement towards the centre, called *entasis*, so that either end of the column is smaller than it is at the centre, or at some distance either side of the centre. This enlargement is so slight that the eye does not observe it, except when it looks directly along the column, up or down. This is done "for the purpose of correcting a disagreeable optical illusion which is found to give an attenuated appearance to columns formed with straight sides, and to cause their outlines to seem concave instead of straight."* This optical correction seems to have been applied by the Greeks from the earliest times.

3. The external columns of the Parthenon, Propylæa, The-seum, etc., do not have their axes perpendicular, but inclining inward at a uniform angle. Hence these axes, if sufficiently produced, would meet at some point above the building. In the Parthenon this intersection would take place 5856 feet above the pavement. This inclination of the columns, as a matter of fact, gives to the Temple a slight pyramidal form, and so imparts to it an increased degree of strength; but this form is never, in the least, noticed by the eye. The design of it, therefore, undoubtedly was to correct an optical illusion, which, without this slight deflection from a perpendicular line, would give to the columns the appearance of a greater distance from centre to centre at the top, than at the base.

But whatever may be the theory in regard to the deviation from right lines, referred to in these several instances, the fact itself is now settled beyond dispute. And inasmuch as the structures in which these principles are found, have with one voice been pronounced the most faultless models of architecture ever constructed, the inference is unavoidable, that the architects

* Penrose.

of the time understood that, for the finest effect, certain optical laws required a departure from right lines.

The columns of the most celebrated Greek Temples are not monoliths, but are composed of separate drums, of three feet or more each. These were so closely fitted to each other, that, where they have not been jarred by earthquakes or some other similar cause, the joint is scarcely perceptible, and the point of a delicate penknife cannot be inserted between the drums. So close a jointure was without doubt effected by rubbing or rolling the face of one drum upon another, till the surface of each was precisely fitted to the other. An examination of the drums, as they may now be seen, shows the process by which this was done. In the centre of the face of each drum, a mortice is sunk, a little more than four inches square and not quite as deep. In this a block of wood is inserted, and sunk a little below the surface of the drum; a hole is bored in the centre of each of these blocks, and two drums connected together by a wooden pin inserted in the holes thus made. In this way the face of one drum could be turned round upon another, till the surfaces were perfectly fitted to each other. But the weight was not made to rest upon the whole face of the drums, but only upon about three-fourths of a foot in diameter at the centre, and about the same at the circumference, — the remaining parts of the face between these points being slightly sunk, so that there the two faces do not touch. The drums are thus more easily and closely fitted to each other, than if it were requisite to finish the whole face; at the same time the columns would stand more firmly, the joints being so perfectly fitted.

The vertical joints in the architrave and elsewhere were likewise made with the same exactness. But, here, only the edges of the joints were smoothed, the central parts being slightly sunk, and hence only the edges of the stones touching each other. How these vertical joints were made with so much exactness, we cannot imagine. Some of these stones in the architrave, where such joints may be seen, are not less than 14 feet long, and one in the Olympæum weighs 22 tons; of course their edges could not have been smoothed and fitted, as the faces of the drums of the columns were.

To prevent injury in the process of building, the mouldings and more delicate parts of the architecture were not wrought till the structure was erected. The columns were put together in the rough, ears or projections having been left on each of the drums to facilitate the process of turning the faces on each other, and to prevent the ropes or chains from slipping in raising the drums to their places. The columns were then fluted with great delicacy and precision, in the positions which they were permanently to occupy. Examples of unfinished columns still in the rough, also mouldings, as well as other architectural faces, are yet preserved, showing the order in which the work was done, and sufficient to confirm the statements here made.

The general facts here given are derived from the valuable work* of Mr. Penrose, embodying the results of his investigations. So far as the eye alone is capable of determining any of the facts referred to, the writer is happy to add his own testimony to the correctness and value of the views presented by Mr. Penrose.

S. H. T.

TEMPORARY TEACHERS.

THE writer of a recent article in the *North American*, speaking of Pestalozzi and Ezekiel Cheever, as teachers, says: "With these two masters, teaching was no mere pastime. It was not with them, as with the keepers of most of our country schools, a kind of half-way house, at which the student puts up for a day, on the road to his profession, to economize strength enough to leave it for ever."

We have a few words to say about these temporary teachers, stopping at the "half-way house," if you choose to call it so, on the way to their profession. The state of the case is this: teachers for the subordinate positions in our large academies, and often both principals and teachers in the smaller institu-

* "An Investigation of the Principles of Athenian Architecture, or the results of a recent survey conducted chiefly with reference to the optical refinements exhibited in the construction of the ancient buildings at Athens." By Francis C. Penrose, Architect, M. A. Illustrated by numerous engravings. Fol. London: 1851.

tions, are found among the recent graduates of our colleges. They usually teach only a short time—two or three years perhaps. The student, at the close of his collegiate studies, finds himself in debt; or he wants means to continue his future professional studies; or, having been thus far under rules, pursuing a course all laid out for him, he needs time and discipline to prepare himself to assume the responsibilities that must devolve on him, when he has his own course to project and complete. By teaching, more readily than by any other way, he secures these results.

It is objected to the employment of such teachers, that the schools suffer, from their inexperience, a succession of the same sort of blunders which no man needs to commit twice; moreover, that those who engage in teaching from the reasons mentioned can have no real love for the profession, being more intent on some ulterior object.

There are, however, some considerations which weigh on the other side of this subject, which we shall notice.

The teacher in the case supposed enters upon his work with a *peculiar zeal*; he assumes, for the first time, a real responsibility, and therefore he is anxious to meet it well. He is more vigilant and more constant than one who, by familiarity, has learned to be careless of the means of success. He feels, too, that he is trying his power. His success now is an index of his ability to succeed in whatever he shall undertake afterwards. Conquering once, he has a prestige of victory again; failing now, he goes to a new trial with the brand of one failure on his forehead and its weight upon his heart. Hence his first effort is his best. Want of experience is made up by ambition to succeed. Ignorant of the plans pursued by others, his own tact devises a way which is generally, for him, better than any other. This is the reason why one's first district school is sometimes better taught than any other.

The teacher supposed enters upon his work with a *peculiar interest*. The subjects to be taught are both *new* and *familiar*; new, because usually they are such as he has pursued early in his course of study; familiar, because all the study that followed them has given him breadth of mind and capacity to comprehend

them better ; and, by a wider range of knowledge, he has learned their worth in application, and their relation to other departments of knowledge. Thus, while he is guiding his class in new paths of learning, he is himself led on in the study, by a curiosity and enthusiasm that are much more likely to be imparted to his scholars by him, than by one who has known all these things and many more, so long that they have lost their freshness. Even suppose the subject were one which he had never studied, would not the discipline of a long course of study prepare him to take it up and master it and teach it ? It is a narrow preparation for a teacher to study just those subjects and those books which he is to teach. A knowledge of one book alone does not fit one to teach that book. The want of acquaintance with a particular book, to be used in a class, can be very readily made up by a scholar.

There is an argument for the view we have taken, in the effect of a long term of teaching upon the teacher himself. Let him remain in the same place year after year, and year after year he goes through the same books ; year after year he thinks the same thoughts, meets the same difficulties. The scholar stumbles just where one did a year ago. The same explanation helps him up. The right time coming around, the teacher tells the same story he told one year ago to illustrate the subject then under consideration. Like the horse in the bark-mill, he gets the foot-marks made at last, and steps in the same places as he performs each new revolution. Or his head gets turned inward by going in a circle ; and, his head being turned, his tendency is to go in smaller and smaller circles about one centre, and that centre not one that can long exert a strong attraction upon an active and thoughtful mind. Driven to no new and difficult investigation, his own powers are untaxed, and have not sufficient new impulse to keep them in healthful vigor. Perfect familiarity with the subjects most in mind generates a sluggishness and dogmatism that are anything but enlivening and stimulating to the scholar.

Let there be no misunderstanding. This is said of those who teach in the lower departments, who have not the care of the government of the institution, and who are themselves under superior officers. As the subjects taught are higher, the range of

connected thought is wider, the inducement to further investigations in collateral subjects is increased, and, by having more mature minds to deal with, the teacher is not chained down to so limited a range of thought. Add to this the supervision of the whole institution; the adoption and execution of rules for the maintenance of order; the direction of the studies to be pursued; the guiding and moulding of maturing minds; and the inculcation of correct moral principles on the mass of youth constituting the school,—and we have a sphere of duty and influence for the teacher high and noble. No! The view we have taken does not depreciate the profession of teaching. It only shows the different grades. It shows that there are responsible and difficult positions which need the weight and wisdom of great men. Do you say that we must take men of proportionate talent and keep them in the lower ranks? The school is not a machine-shop, where a systematic division of labor gives each kind of work to some one capable of performing it, and asks him to know no more than to do that one kind of work. We have noticed the effect of such a system upon the teacher, and thence upon the scholar. The scholar must be drawn upward, stimulated by powers of thought much above his own—by powers which cannot be content to dwell always in his limited range of knowledge.

The writer above alluded to “looks forward with hope to the time when teaching will be a distinct profession, requiring the same course of studious preparation as law or medicine.” So we shall need a special course of study to prepare for their duties our Professors and Presidents of Colleges. The truth is, the best preparation for a teacher in any department of knowledge is the same discipline that shall give him a thorough education in that department.

Let us have, then, our great and good men at the head of schools, like Dr. Arnold, of Rugby, and Dr. Taylor, of Phillips Academy, and they shall impart their zeal and principles to those who labor with them, and all together shall tend to the constant advancement of our system of education.

M. L. M.

SELF-REPORTING.

INTELLECTUAL training may affect the social position of a man in this life; the moral influences with which he is surrounded will tell upon his eternal destiny. Then, as eternity is more enduring than one's earthly existence, as the happiness of heaven is more important than the pleasures of time, so is the moral character of the teacher of youth and the system of government and discipline he adopts, of greater moment than his intellectual preparation and mode of instruction in science and literature.

In the above positions all agree, but respecting the moral bearings of certain courses of action there are different opinions among conscientious and able teachers. Of no custom, perhaps, is this more emphatically true than of the self-reporting system adopted in many of our schools.

The merits and demerits of this system have often been discussed, but oral discussions are, by most, soon forgotten; and now to call forth the opinions of others in tangible and durable form — their reasons for and against the practice — is no less the writer's motive than to express his own views of it.

Different teachers will, of course, apply the system in different ways, to a greater or less extent, and with different degrees of skill; so in different schools it may be more or less objectionable; but as we have seen it applied we are constrained to believe it has been productive of evil, and mainly, if not only, evil, and that continually. Moral growth is not promoted by tempting a child beyond what he is able to withstand. The teacher calls upon his pupils individually at night to know whether they have whispered or violated any of the rules of the school during the day. One pupil who, inadvertently or under the influence of sudden and strong temptation, may have violated a rule, conscientiously and with genuine moral courage answers in the affirmative and is severely reprimanded, and perhaps receives other punishment; another, more guilty, replies in the negative and is commended. This is no fancy sketch. We have seen it and known it many times. Now what is this but a bounty upon lying — a temptation which multitudes of children are unable to

withstand? It is too much like an enactment of government that no sealed letter shall be carried over any mail route except in the mail-bag or as the government shall otherwise provide — that postage shall be charged upon all letters according to the number of pieces of paper contained in them — that letters to different individuals shall not be sent under the same envelope, &c. Had government the means of detecting the violations of such laws, they might be the source of some revenue; but in the absence of such means, no one would regard them, save the scrupulously conscientious, those who feel under the most solemn obligations to yield full and implicit obedience to the powers that be. Hence such a foolish design to raise a revenue would become only an engine for corrupting the morals of the people and sapping the foundations of the government which it was intended to sustain. Now if men and women of mature minds and fixed moral principles, to save a half dime, will evade the law, or by the most distant implication falsify their word or in the least violate conscience, what shall we not expect of children, whose moral sentiments have not been developed and strengthened by habit or fortified by experience, when the frown of an offended teacher or the impending rod threatens every one who has yielded to the almost omnipotent solicitations of his social nature, and who is, nevertheless, hero enough to speak the truth? *If men will deceive to save a penny, then, assuredly, children will LIE to escape the lash;* and how can the teacher in the morning raise the petition, “lead us not into temptation,” and in the evening lay this snare before his pupils?

Doubtless there are schools in which this system may, by some teachers, be adopted with comparative safety, and, for a time, apparently happy results; but these are just the schools where no such device is needed, and such teachers are just the teachers who have abundance of resources of skill and success in themselves, without resorting to any questionable method of discipline or government.

It is far better to throw scholars upon their sense of honor to act — *not to report whether they have acted* — as men and women, or as worthy candidates and aspirants for these exalted appellations, than to appeal to their fear of dishonoring themselves by reporting their misdeeds.

Even in the best of schools it may well be doubted whether this practice will ultimately aid in securing order. The teacher's kindly sympathy with those who strive to do right, his prompt correction of those who mean to do wrong, his presence and vigilance, must be his ground of success. If there is not a sufficient degree of whispering or disorderly conduct to attract his attention, it can do little good to inform him at the close of the day that there have been certain violations of his rules; and if there is so much confusion as to disturb him in his recitations, a few well-timed and judicious punishments, acts of severity if you please, will do more to restore and preserve order, more to secure to the teacher the respect and the affections of his pupils—conditions absolutely essential to the highest welfare of a school—than any amount of self-reporting or monitorial reporting can do. At least, so it seems to the writer; but, as at first stated, his object is to call forth the views of others.

J. S. E.

THE MARKING SYSTEM.

At the last annual meeting of the Massachusetts Teachers' Association the "marking system" was discussed, and opinions expressed by some of the most experienced teachers in the State. Some objected to any system of daily marking, from the difficulty of marking accurately, its injurious effects, in their opinion, on the pupil, and the amount of time consumed; others advocated some system as absolutely necessary to secure good order and a high standard of scholarship, each one, of course, claiming peculiar merits for the one used by himself and approved by his experience.

It is not the design of the writer to discuss the "marking system," as it is generally understood, though he has his own views about it, but to give the method used in the Newburyport Female High School to secure a thorough scholarship, as it is unlike what is generally used, if not different from what is practised in any other school. No marking is made of any student at the time of recitation, but at the close of every study all are

subjected to a written examination, similar to that adopted in most schools for the admission of pupils, and by this examination the rank of each student is determined. This examination is intended to be so searching that no scholar can answer the required number of questions who has not a satisfactory knowledge of the branch. The names of the class, the questions proposed, and the result, are recorded in the records of the school, from which the standing of any particular student in every study of the course can be at any time determined. Should any student fail in her examination, she is not permitted to take up the next study of the course until she has reviewed that branch with the next lower class. In this way some students who have been four years in the school, the term necessary to complete the course, may not have completed more than the studies of the first two years. Still it is intended that, as far as they go, the branches shall be well understood, which is much better than a superficial knowledge of the whole course.

Prof. Crosby, then one of the School Committee of Newburyport, was instrumental in introducing this method into the school. It has been used for several years, and has been found practically to be all that could be desired. The dread of falling into a lower class has proved a more powerful stimulus to exertion than could any system of marking, generally kept for no other purpose than to be shown to parents. This method also relieves the teacher from the difficulty, oftentimes felt, of determining by his own judgment who shall be excused from a given study, and from all imputations of partiality in his marking. Were a parent to complain of injustice in placing his daughter in a lower class, he could be referred to the written evidence in her examination, indicating her scholarship. No such complaint, however, has been made, though some have been obliged to go over the same study in three consecutive classes.

While this method is free from most of the objections urged against the ordinary marking system, it has secured a much higher standard of scholarship than was ever gained by any other means. As an illustration, the result of the last examination in geometry is given. This study is taken from its well known difficulty, and the repugnance generally shown to it by students.

Sixteen propositions, two from each book, were given the class, and each one was required to draw her figure and write out the demonstration before leaving her seat. Of course, the student must be familiar with the figure and demonstration of each proposition in the Geometry, to enter upon such an examination with confidence. The class numbered twenty-one. Ten of these answered all correctly; five, all but one; three, all but two; one, all but three; one, all but four; and the lowest failed in five.

Of course, this method could not be adopted in schools of a lower grade, perhaps might not meet the wants of all high schools. The writer is more anxious to make this qualifying remark because he cannot but add, generally, that much evil has been done by one teacher's attempting, from his own reason and experience, to lay down absolutely the "theory and practice of teaching." The same method, for whatever end, which had in one school and under one teacher been perfectly successful, might, under other circumstances, utterly fail. One of the first things to be *unlearned* in the school-room is the many theories which it is the fashion of the day to pour into the minds of those preparing to teach. The teacher thinks too little of what he *ought* to do—too much of what he has been *told* to do. Is not this remark applicable to much that is said and done now by, and in reference to, teachers?

W. C. T.

TRIBUTE TO JOHN HARVARD.

[From an address by Rev. Geo. E. Ellis, D. D., at the Dedication of the Prescott School House, Charlestown.]

WE commemorate next, blessed JOHN HARVARD—the founder of the College. And every city in this State ought to have a school—I had almost said, ought to have a church—bearing that revered name; for the whole personal history of that good man,—the first saint in our calendar,—is a blank to us, saving only his good deed. He comes out of the shadows of the past like another Melchisedek,—“without father, without mother,

without descent," without pedigree, without posterity,—unknown in birth-place and in burial-place, and so without any "beginning of days." Yet we do know the "end of his life," because, when the grain of wheat fell into the ground, it bore much fruit; and we know, too, that HARVARD, like Melchisedek, was a "priest of the most high God,"—a true King of Salem, City of Peace. But all his history is vague to us; and not the least wonderful fact is, that a Puritan minister should have had so much money to give! Our most diligent antiquarian, Hon. JAMES SAVAGE—who has already found out a great many things which Time had forgotten,—has said that he would cover with gold coins heaped up, every letter and line that would tell us anything about JOHN HARVARD. He even crossed the ocean to search for memorials of that good man; but he found only on the books of Emanuel College, in old Cambridge, the dates of HARVARD's matriculation and of his subscriptions for the two degrees of Arts, in 1631 and 1635. An entry in an almanac, made by one of our ministers, his contemporary, has happened to record his death, in seventh month, 14th day, 1638. An entry in our Court Records, in the State House, tell us that he became a freeman only ten months before his death,—and that is all. That the good man preached for a season in Charlestown church, of which he and his wife became members in 1637; that he had here a house and land, and was one of a committee in the matter of colony laws; that he died here of consumption, doubtless in the flower of his youth; that he was buried somewhere beneath our soil,—these are all the other scanty memorials of him who, time and circumstances considered, made the largest and most useful bequest ever bestowed, even in this region of splendid and munificent charities. He has a monument in our old burial-ground, but the date of his death on that marble slab is erroneous; and it is probable that his remains rest beneath the old Town Hill, or are trampled over by the busy feet that course our City Square. He has a more congenial monument in the school which bears his name. There may children to the latest generation learn the elements of that wisdom and piety whose fruits are growing around his unknown grave!

INFANT SCHOOLS.

It is refreshing to see how much attention and labor is given to improve our schools. This improvement, however, has only begun. As all those who take an interest in the cause of education take a more elevated stand, their range of vision widens, and justice will be done at some future time to all stages of childhood. Hitherto the Grammar and High schools have received more than their proportionate share. The Primary school stands still humbly in the rear, and far behind it another class, at present almost unknown in America: — *the Infant school*. Such schools are an important branch of a good organization, require but little to be carried on, and produce the most satisfactory results. They contain children from two to five years old. That such schools should not have claimed much attention here at a time when the poor were few, and the moral and physical evils attending a poor and dense population were unknown, is no wonder. But now, when thousands of poor, degraded, and often vicious families are crowding our cities, neglect on our part is not only wrong, but fraught with great consequences. Here they are living among us, and their children will prove to a great degree a blessing or a curse to our society, according to the care that is bestowed upon them. Experience, gathered abroad, speaks in favor of such schools, and philanthropy views in them one of the greatest engines for the relief of suffering and the prevention of vice and disease. Hundreds, if not thousands, of infants are spending two or three of the most important years of their lives, during which the foundations of their moral and physical constitution are to be laid, either penned up in filthy, narrow cells, or left at large to live in the most neglected streets of our cities.

It is natural that, with regard to these schools, Europe should be far in advance of America. Such schools exist in *Italy*, a country where institutions of learning are not particularly favored. In Florence, an edifice formerly used by the Inquisition is now occupied for teaching hundreds of little children to knit and to braid. Another larger and better school of this kind is in Milan, where provision is made that every child may have a good and

substantial meal for the equivalent of one cent. In *Greece*, these schools were introduced by American missionaries and are now quite numerous. They have attained a high degree of perfection in *England* and *Scotland*. The writer visited some of these institutions in Dover and London in 1849, and was himself one of the directors of one in *Germany*, where they may be found in almost every large city, supported by voluntary contributions and the municipal government. *France* has gone still farther, and supports with her money, institutions where children are received from six years down to two months old. One room is provided with a number of cradles, where the youngest ones are kept, and, if necessary, fed with milk and cared for from morning till night. Another room is covered with mats on which the infants can exercise in crawling on all fours, and besides this there is an open, airy space connected with the establishment, where the infants are carried in couples by nurses to breathe the open air. These schools have proved a great benefit to poor, working mothers. A "friend of infants" wrote, a little while ago, thus in the *Boston Traveller* :

"We need not comment on the good that such institutions must accomplish, and the evil they must prevent. And yet a selfish benevolence has often complained that children are thus taken away from home influence. And so they are, and it is for that object that such institutions are reared. And it were best for society if all children who are under a bad influence at home could be taken away altogether from it. For we must not forget that such a provision is made, not for the children of those parents who *will* and *can* attend to the rudimental wants of their offspring, but for those who from necessity or other causes are abandoned to chance. In Europe there are such places erected by the hand of government or of benevolence, where the evils of those uncomplaining ones can be somewhat redressed. But what have *we* done for them? No one will deny that in the city of Boston, there are thousands of unfortunate or inhuman parents who will not or cannot fulfil their duty towards their children. Must these unfortunate beings then be allowed to acquire the germs of the moral or physical diseases which will grow with their growth, and fit them most effectually for the State prison, or for the poor

house? Self-defence, if not humanity, ought to awaken our community to the growing and crying wants of the infant.

"There is another incidental advantage offered by such institutions, which is of no little importance. For by taking care of children at an age when parents feel most the need of such aid, and are most willing to avail themselves of it, the causes for and the disposition to truancy must diminish to a great extent, if not be entirely removed. Two benevolent societies in Boston and one in Charlestown have been laboring to supply in part this want of our community. The results obtained by the unremitting efforts of these societies for the space of about one-fifth of a century, in the midst of difficulty and discouragement, though highly creditable to the minds and hearts of those engaged in the work, cannot be said to reflect any credit on the Athens of the new world. It is to be wished that they might either meet with better encouragement in future, or that our cities themselves, feeling the importance of the work, would come to the rescue of suffering humanity in the earliest and tenderest stage of its existence."

CHS. A.

GLEANINGS.

THE qualifications necessary for a truly good teacher have been often spoken of, and the great influence which such a teacher possesses over the lives of his pupils is appreciated, at least in part, by those who will read these words. From the true laborers in our ranks, both living and dead, we gain an inspiration which carries us on, and makes us love our work more, and desire to make ourselves more what we should be, and what we may be, if our desires are an earnest of our capabilities.

I have been reading lately the life of Dr. Arnold, which, particularly the chapter on his school life at Rugby, is intensely interesting. Even those who are acquainted with the book may be willing to read again some of the thoughts and expressions which give so true an idea of the man, and those who have not yet read it may be induced to do so.

The school at Rugby was founded, I think, in the reign of Elizabeth, having consequently been under the guidance of many different head-masters. Dr. Arnold, before receiving the appointment, had had considerable experience in teaching, and came to the school with the confidence of the community. Through many difficulties he worked his way, and raised the school to a firm and sure position, above all doubt and misrepresentation. His influence over his pupils was unbounded. Free from all *assumed* dignity, he won at first their deepest respect and admiration, and at last their warmest love. The works of various kinds which he has left, bear witness to his unwearied assiduity. The head-ship of so large a school, involving so much care and watchfulness, must, of necessity, be a trying and wearing one, and, as he was at once teacher and chaplain, his duties did not cease with Saturday night, yet he tells us, — and how many of us can bear witness to the truthfulness of the saying, — “It is not labor, but vexation, which hurts a man.” Labor is light while all coöperate, but if we work comparatively alone, if we are continually disappointed in our scholars, if we find that we cannot trust them, if we see a want of principle, we can work no longer freely, and we tire with the continual strain.

How often, especially in higher schools, we find those whose age would warrant us in expecting the steadfastness of maturity, exhibiting, instead, the frivolity of childhood! This Dr. Arnold shows us that he felt and saw when he asks the question: “Can the change from childhood to manhood be hastened without prematurely exhausting the faculties of body or mind?” Can we, while preserving the freshness, and light-hearted joyousness of childhood and youth, establish principle as the guide of action, develop the moral faculties, and make conscience paramount?

At one time, for some misdemeanor, several boys were expelled, and a feeling of rebellion was spreading in the school. Calm and self-possessed he stood before them, and said: “It is *not* necessary that this should be a school of three hundred, or one hundred, or of fifty boys, but it *is* necessary that it should be a school of Christian gentlemen.” The same feeling prompted the statement: “What we must look for here, is 1st. Religious and moral principle; 2d. Gentlemanly conduct; 3d. Intellectual ability.” His pupils tell us that “his education was not based

upon religion, but was itself religious." Of his influence it is said: "As, on the one hand, his interest and sympathy with the boys far exceeded any direct manifestation of it towards them, so, on the other hand, the impression which he produced upon them was derived, not so much from any immediate intercourse or conversation with them, as *from the genial influence of his whole character, displayed consistently whenever he appeared before them.*"

The school was divided into six classes or "forms." It was upon the sixth form principally that his influence was brought directly to bear, and as these sixth form boys were those who were served by the lower classes as fags, and as they had a sort of monitorship over the others, it was imperatively necessary, for the full success of the school, that their influence should be good, and only good. "Nothing, accordingly, so shook his hopes of doing good, as weakness or misconduct in the sixth. 'You should feel,' he said, 'like officers in the army or navy, whose want of moral courage would indeed be thought cowardice.'" "When I have confidence in the sixth," was the end of one of his addresses, "there is no post in England which I would exchange for this; but if they do not support me, I must go."

He bears his verbal testimony to the importance of the personal character of a teacher, when he says: "One may acquire a contempt for the information itself which he sees possessed by a man whom he feels, nevertheless, to be far below him."

I will give only three more extracts, hoping that these may induce all who have not read the life, to procure that, as well as the book entitled "Tom Brown's School Days at Rugby," by a pupil of his, which gives a fine and fresh idea of the school.

"If any one shall learn anything from me, he may be sure that he may impart something to me in return, of which I was ignorant."

"That which we know and love, we cannot but communicate; that which we know and do not love, we soon cease to know."

The last shall be from his private journal, written only a short time before he was so suddenly called to another life. It needs no comment. It was probably never intended for any human eye: "Above all, let me mind my own personal work; to keep myself pure and zealous and believing, — laboring to do God's work, yet not anxious that it should be done by me rather than by others, if God disapproves of my doing it." A. E.

Resident Editor's Department.

THE PROFESSION OF EDUCATION.

A work* recently published in London, professedly for the purpose of guiding literary young men in the choice of a calling, contains a chapter on the importance and emoluments (if any exist) of the profession of teaching. Although much of the book is a mere compilation of different reports, and other documents submitted to the notice of Parliament, some knowledge may, perhaps, be gleaned from it, as to the general estimation in which the so-called learned professions, and, in fact, all literary pursuits are held in England. The following extract will give the reader a barrister's idea of the vocation of schoolmasters:—

The profession of education, second to none in usefulness, the most grateful in the nature of its duties, and the largest in numbers, has the singular fortune, in highly educated England, of holding only a secondary position in society. The causes of this are difficult to trace, but the continuation of this position, whilst the ranks of the community are marching by, is the result of the combination of many circumstances. The first is the unjust prejudice of the upper classes. A man may be a briefless barrister, a needy surgeon, or a starving curate, he is still a gentleman, and admissible into the society of the best of the land; but let him, though a gentleman by birth, education, and profession, break through the trammels of needy circumstances, and, for the sake of his wife and children, make himself independent and useful, by keeping a school, and he will be thought, even by his best friends, to have lost caste. He may become wealthy, important to his family, and gain influence in his neighborhood, and yet the folly of society will still persist in looking down upon him. But is he not much more worthy of its honor and respect? If less genteel, he is more independent; if tuition is humble labor, at least it need not be dirty work. His school, if good, will make its way without humiliation. He is never asked to prove black white, to mix a potion to an old lady's fancy, or to pervert the plain truths of the gospel that the squire's lady may hope for salvation. Why should the schoolmaster be despised? He is generally a man of substance; his office is the gentlest that can be assigned to the good, namely, the leading the young in the right path. He is asked to continue that which the fond parent has commenced. Should he, then, be lower than the parent? It is a

* THE CHOICE OF A PROFESSION. A concise account and comparative review of the English Professions, by H. Byerley Thompson, B. A., of the Inner Temple, Esq. London: 1857.

discredit to the growing intelligence and extending liberality of the upper classes that this prejudice continues against even the most meritorious of a meritorious calling.

More, perhaps, is due to the vulgar assumption of the middling, mercantile, and trading classes, who, unable to comprehend the cultivated elegance of a man unfairly thrust down to their rank, and finding his intelligence, and the precise use of the letter "H," rather in their way, do then, after their kind, proceed to imitate their superiors, not in their graces, but in their faults, and, amongst others, in their contempt for the schoolmaster. They look upon the education of their children as something to be bought, and, unless it is produced to them in a form promising pecuniary profit, they seem to think themselves unfairly dealt with. The "crammer," accordingly, they can comprehend; but the honorable educator who has been forming their boy's mind silently for years, for the great purposes of life, and to be a decided improvement upon the parent, is looked upon almost as an enemy rather than as a friend. Accordingly, we find the schoolmaster occupying a more anomalous position in Liverpool, Birmingham, and Manchester even, than in the westend of London. The contempt which the cotton-lord and corn-factor universally show for all intellectual laborers is expressed in a marked manner towards the schoolmaster. If admitted into their society, it is with a sufferance more offensive than exclusion. It is one of the petty triumphs of money over mind.

This false prejudice of society against the schoolmaster, which never seems to have attained its full scorn until society had become quite debased in the reigns of the Georges, has hitherto had the effect of preventing cadets of the better families from looking to this calling, and it has accordingly been abandoned, with few exceptions, to not only an inferior class, but almost to the adventurers of the country. It has not seldom been a question with a ruined man whether he shall emigrate or start a school. Thus the false views of the genteel have created a reason and an excuse for their support. To the initiated it is well known that no calling has been so abused by idleness, neglect, want of faith, and plain dishonesty, as that of the schoolmaster, chiefly because society has forced it into an unnatural position, and thus deterred the proper classes from following this profession.

The members of the profession of education divide themselves into several classes, the first great division being that of sex, this profession containing a larger proportion of the fair sex than of the sterner sex.

Amongst the manly sex rank highest the principals of endowed colleges and foundation schools. These gentlemen, reckoning from the Dean of Christchurch and the Master of Trinity, downwards, are the only portion of the profession who gain social position by their office. They are generally clergymen that have taken high honors at the universities, and their offices are often considered as passports to ecclesiastical honors. They are nearly always well endowed, though some of the grammar-schools are in a miserable condition.

Next follow the tutors, private tutors, lecturers, and private lecturers, of the universities, and such large public schools as Eton, Harrow, &c. College and public school tutors and lecturers, are paid by certain fees or salaries, and obtain often good incomes. The tutors in many public schools have profited

largely by taking boarders into their houses. But the largest sums are made by the private tutors in Oxford and Cambridge, especially in the latter town. It is no uncommon thing for a young senior wrangler to make £1000 a year with ease for a few years previously to his entering upon another profession, and some of the more distinguished tutors, who have remained in the universities, are known to have saved fortunes.

From these we pass to the proprietors of private schools. A private school, well managed and properly pushed, is one of the most certain speculations in any profession. There are so many narrow-minded, stingy, mean, and negligent persons in this occupation, that any gentleman who does, by liberality and honor of conduct, establish a character, is sure of success, as far as his capital goes. The same establishment that is necessary for ten boys, is sufficient for twenty; or for fifty boys, is sufficient for seventy. After a certain number, all is profit. This branch of the profession requires business habits, and a capacity of management, in addition to educational attainments, which may be the reason why few are preëminently successful.

The remaining classes are the ushers, private tutors in families, governesses, and day-schoolmasters and schoolmistresses, whose position is too well known to require comment. The profession has of late been partially brought into a form in the following manner:—

Henry Stein Turrell, of Brighton, Esq., together with others, in the year 1846, associated themselves in an educational institute, called the College of Preceptors, for the purpose of promoting sound learning and of advancing the interests of education, more especially among the middle classes, by affording facilities to the teacher for the acquiring of a sound knowledge of his profession, and by providing for the periodical session of a competent board of examiners to ascertain and give certificates of the acquirements and fitness for their office of persons engaged, or desiring to be engaged, in the education of youth, particularly in the private schools of England and Wales. These gentlemen subscribed and collected considerable sums of money for carrying out these puposes, and were also desirous at the same time to provide a fund for the relief of distressed members of the College of Preceptors, and their widows and orphans.

Believing that the well-being and usefulness of the college would be materially promoted by obtaining a royal charter of incorporation, the Queen granted to the members of the college her royal charter of incorporation, under such regulations and restrictions as might seem expedient to them.

They are constituted one body politic and corporate by the name of the College of Preceptors.

The corporation is capable in law to take, purchase, and hold any personal property whatsoever, and to take, purchase, and hold lands, buildings, and hereditaments necessary for the purposes of the college, not exceeding fifty acres, with power to demise, alien, and dispose of all or any such lands or personal property, and to do all other acts and things incidental or appertaining to a body corporate.

A general meeting of the members of the corporation is to be held twice in every year, on the 5th day of January, and on the 24th day of June.

The secretary of the corporation is required to convene, at any time, a special general meeting, on being required so to do by any twelve members of the corporation, by writing under their hands, specifying the object or objects for which the same is to be convened; fifteen days' notice of the meetings must be given.

At every ordinary or special general meeting, before proceeding to other business, the members present elect a chairman, who has a casting vote.

There is a treasurer of the corporation, who is a member; and there are three auditors, members of the corporation, elected at the first ordinary general meeting in every year, retiring auditors being reëligible.

There are also a dean and secretary of the corporation.

The affairs of the corporation are managed and directed by a council consisting of forty-eight members; one-fourth of the members of the council go out of office annually, on the day of the first ordinary general meeting, in order determined by lot or by agreement amongst the members of the council, until the whole forty-eight members to be elected have gone out of office.

The council must meet at least eight times in every year, at such periodical times as they appoint, and no question can be decided at any meeting of the council, unless at least seven members are present and vote on such question: the members to supply the places of the members going out of office are elected at the first ordinary general meeting in every year; retiring members may be reëlected.

At the first meeting of the council after the first general meeting, the members of the council elect a president of the council, and three vice-presidents (all members of the council); and at every meeting of the council, the president, or, in his absence, the vice-president whose name stands first in the register of members, takes the chair; and in case neither the president nor any of the vice-presidents are present, then the members present elect a chairman.

In case any member of the council dies, the council elects a member to supply his place; and if any member of the council does not attend any meeting for the space of six consecutive calendar months, he ceases to be a member of the council, and the council elects a member to supply his place.

The secretary must, at any time or times, call a special meeting of the council on being required so to do by any six members of the council by writing under their hands, specifying the object; and must give ten days' notice of every such special meeting.

Every person (being a member of the said corporation) who has at any time filled the office of the president of the council, is a member of the council for his life, or so long as he continues a member of the corporation, in addition to the forty-eight members thereof.

The council, for the time being, has the custody of the common seal of the corporation, with power to use it for the affairs and concerns thereof; and has full power and authority to direct and manage such affairs and concerns, and to purchase and sell the property of the college.

There is a half-yearly report by the council, and an audit of the accounts by the auditors.

The council elect and remove all the officers except the auditors, nominate

examiners, appoint their remuneration, and appoint the times, manner, and subjects of the examination, grant diplomas or certificates, fix the amount of subscriptions payable by members, and the fees payable on receiving diplomas or certificates, make rules for the election of members, and, generally, make all such by-laws for the management of the affairs of the corporation, and the furtherance of its objects, as to them may seem fit.

Any rule or by-law made by the council may be reversed or annulled at any ordinary or special general meeting: the council cannot make any rule or by-law contrary to any rule or by-law made at any ordinary or special general meeting.

The surplus funds of the corporation, after defraying the ordinary expenses, must be applied by the council, but with the consent and by the direction of a general meeting in every particular case, in the maintenance of poor or diseased members of the college, or of the widows or orphans of deceased members, or the founding or endowing of normal or training schools, or in instituting lectureships on any subject connected with the theory or practice of education, or in or towards founding branch institutions in connection with the college, or in any other manner calculated to advance the cause of education, or the interests of the scholastic profession, particularly in England and Wales.

Mathematical.

QUESTION 12. It is required to mix 1200 lbs. of cream of tartar, worth 30 cents per lb., with rice worth 4 cents per lb., so that the mixture when ground may have cost 24 cents per lb.; the grinding costing $\frac{3}{4}$ cent per lb., and there being a waste of 10 per cent. in the process of grinding. How many lbs. of rice must be sent to the mill?

QUESTION 13. Solve the equation, $\sqrt[5]{x-a} + \sqrt[5]{x+a} = b$.
It can be solved by quadratics. G. B. V.

PROPERTIES OF NUMBERS.

The difference between an integral number and any odd integral power of that number, is divisible by 6; and, if the number is odd, this difference is divisible by 12.

Let it be remembered that any quantity is divisible by another when either of its factors is so divisible; and that, if a number is divisible by two or more prime numbers, or by two or more numbers prime with respect to each other, it is divisible by the product of these numbers.

Let m be any whole number; then $m^3 - m$ can be exactly divided by 6. For $m^3 - m = m(m-1)(m+1)$. Now, if m is an even number, the quantity is evidently divisible by 2; but, if m is an odd number, $m-1$ and $m+1$ are

both even numbers. The given quantity, $m^2 - m$, is necessarily, therefore, divisible by 2.

Again, if the factor m is divisible by 3, the product is divisible by 3. But, if m is not divisible by 3, when divided by 3 it must leave either 1 or 2 for a remainder. If it leave 1 for a remainder, the factor $m - 1$, which is 1 less than m , must be divisible by 3; but, if m leave a remainder of 2, $m + 1$, which is 1 greater than m , must be divisible by 3. Hence either m , $m - 1$, or $m + 1$, must be divisible by 3. Therefore, since the number represented by $m^2 - m$ is divisible by both 2 and 3, it is divisible by their product, 6.

We have seen that, if m is an odd number, $m - 1$ and $m + 1$ are both even, that is, both divisible by 2; the product is therefore divisible by 4, and, being divisible by both 3 and 4, it is divisible by their product, 12.

The same is true of $m^3 - m$, which is equal to $m(m^2 + 1)(m - 1)$, for this contains the three factors of the former quantity, viz., m , $m - 1$, and $m + 1$.

That the principle enunciated is true generally may be shown as follows:

Any odd number may be expressed by the form, $2r + 1$; hence $m^{2r+1} - m$ expresses the difference between any odd power of a number and the number itself. But $m^{2r+1} - m = m(m^{2r} - 1)$; and, as any power of 1 is 1, the second factor is the difference between the squares of two numbers. Now we know from Algebra that the difference of the squares of two quantities can be separated into two factors, one of which is the sum, and the other the difference of the quantities; also, that the difference of similar powers of two quantities is divisible by the difference, and, when the powers are even, by the sum, and that the sum of similar odd powers of two quantities is divisible by the sum, of those quantities. Hence,

$$m(m^{2r} - 1) = m(m^r + 1)(m^r - 1).$$

Now, if r is even, $m^r - 1$ is divisible both by $m + 1$ and $m - 1$; but, if r is odd, $m^r + 1$ is divisible by $m + 1$, and $m^r - 1$ by $m - 1$, so that the quantity in question has as factors m , $m - 1$, and $m + 1$, the three factors of $m^3 - m$, and is therefore always divisible by 6, also by 12 when m is an odd number.

T. S.

ANSWERS TO QUESTION 2.

In the following answers, we have taken the liberty, in some instances, to change the letters for the sake of convenience.

D. W. H. gives, as a formula for each man's money,

$$\frac{a[nr^{n-1}(r-1) + 1]}{r^n};$$

in which a = the amount each had left; r = the ratio of each man's money before and after each gain, that is, he had r times as much after the gain as he had before it; n = the number of gamblers; and m = the numerical position of each man in the series.

J. F. K. gives

$$\frac{a + anr(r+1)^{n-1}}{(r+1)^n};$$

in which the letters have the same significancy as in the preceding, except that r is the ratio of each gain to what the man had before the gain.

W. gives

$$A's = \frac{a + rs(r+1)^{n-1}}{(r+1)^n}, B's = \frac{b + rs(r+1)^{n-2}}{(r+1)^n},$$

$$C's = \frac{c + rs(r+1)^{n-3}}{(r+1)^n}, \text{ \&c., the last player's money being = } \frac{l + rs}{(r+1)^n};$$

in which a, b, c, \dots, l , represent the different sums the players had left, $s = a + b + c + \dots + l$, r and n being the same as in the preceding.

M. C. S. gives essentially the same as W.

C. C. C. gives

$$\frac{(r-1)an}{r} + \frac{a}{r^n}, \frac{(r-1)an}{r^2} + \frac{a}{r^n}, \frac{(r-1)an}{r^3} + \frac{a}{r^n}, \text{ \&c.;}$$

in which the notation is the same as that used by D. W. H., and the formulæ, with a little change, are identical with his. The author remarks: "The successive answers to all such problems constitute a series, formed by adding in order the corresponding terms of two geometrical series, whose first terms are respectively $\frac{(r-1)an}{r}$ and $\frac{a}{r^n}$, whose ratios are respectively $\frac{1}{r}$ and 1, and whose number of terms in each is n ."

In the particular problem in the 'Teacher,' $r = 2$, and the series are as follows:

First geometrical series, 80, 40, 20, 10, 5.
Second " " 1, 1, 1, 1, 1.
Series of answers, 81, 41, 21, 11, 6."

AMICUS gives

$$1 + 2^{n-1}n, \dots, 1 + 2^3n, 1 + 2^2n, 1 + 2n, 1 + n,$$

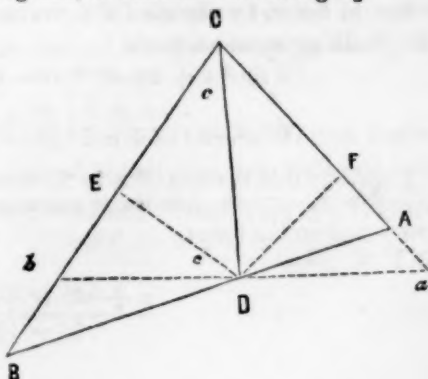
as the formulæ for the several answers, in which it is supposed that each player doubles his money when he wins, and that the sum which each has left is $= 2^n$, n being the number of players.

SOLUTION OF QUESTION 4.

[Given the vertical angle, the line bisecting it, and the difference of the segments of the base made by this bisecting line, to construct the triangle.]

Let ABC be the triangle, C the given angle, and CD the bisecting line. Put half the given angle $= c$, $DC = m$, $BD - AD = d$, and the angle $ADC = x$. Then $CAD = 180^\circ - (x + c)$, $CDB = 180^\circ - x$, and $CBD = 180^\circ - (180^\circ - x) - c = x - c$.

From the proportion between the sides of a triangle and the sines of the opposite angles, we have



$$AD = \frac{m \sin. c}{\sin. (x + c)}, \text{ and } DB = \frac{m \sin. c}{\sin. (x - c)}. \text{ Hence}$$

$$\frac{m \sin. c}{\sin. (x - c)} - \frac{m \sin. c}{\sin. (x + c)} = d.$$

Removing the denominators, developing $\sin. (x + c)$ and $\sin. (x - c)$ into the equivalent functions of x and c , substituting $1 - \sin.^2 c$ for $\cos.^2 c$, and remembering that $\sin.^2 c + \cos.^2 c = 1$, we have

$$2 m \cos. x \sin.^2 c = d \cos.^2 c - d \cos.^2 x; \therefore$$

$$d \cos.^2 x + 2 m \sin.^2 c \cos. x = d \cos.^2 c, \therefore$$

$$\cos. x = \frac{-m \sin.^2 c \pm \sqrt{d^2 \cos.^2 c + m^2 \sin.^4 c}}{d}.$$

Having found the angle x , we easily construct the triangle, either by making the angle $ADC = x$, and producing the line AB until it meets the sides AC and CB in the points A and B , or by calculating one of the sides AC or AB , and then drawing the line AB .

G. B. V.

SOLUTION SECOND.

Using the figure of the preceding demonstration, with the same parts given, draw DE and DF respectively perpendicular to BC and AC . These perpendiculars are easily shown to be equal. Let ba be perpendicular to CD , and let x be the excess of BDC above 90° ; then $BDE = c + x$, and $ADF = c - x$, c being half the given angle. Represent DE by r , CD by m , and $BD - AD$ by d .

From the right triangles, BDE and ADF , $BD = \frac{r}{\cos. (c + x)}$, and $AD = \frac{r}{\cos. (c - x)}$. Hence,

$$\frac{r}{\cos. (c + x)} - \frac{r}{\cos. (c - x)} = d, \therefore$$

$$r [\cos. (c - x) - \cos. (c + x)] = d \cos. (c + x) \cos. (c - x), \therefore$$

$$2r \sin. c \sin. x = d (\cos.^2 c \cos.^2 x - \sin.^2 c \sin.^2 x), \therefore$$

$$\begin{aligned} \text{"} &= d [\cos.^2 c (1 - \sin.^2 x) - \sin.^2 c \sin.^2 x], \therefore \\ \text{"} &= d [\cos.^2 c - (\cos.^2 c + \sin.^2 c) \sin.^2 x], \therefore \\ \text{"} &= d (\cos.^2 c - \sin.^2 x), \therefore \end{aligned}$$

$$d \sin.^2 x + 2r \sin. c \sin. x = d \cos.^2 c.$$

But, in the right triangle CDE , we have $r = m \sin. c$, which, substituted in the preceding equation, gives

$$d \sin.^2 x + 2m \sin.^2 c \sin. x = d \cos.^2 c; \therefore$$

$$\sin. x = \frac{-m \sin.^2 c \pm \sqrt{d^2 \cos.^2 c + m^2 \sin.^4 c}}{d}. \quad \text{J. S. R.}$$

It appears that the sine of x , in the latter solution, has the same value as the cosine of x in the former. This is evidently as it should be, since x in one case is the complement of x in the other.

Ed.

Scientific.

SILICON AND BORON. — Each of these substances is now proved to exist in three states, analogous to the three states of *carbon*, — namely, *charcoal*, *graphite*, and *diamond*. Crystallized boron resembles the diamond in its hardness, its brightness, and in its refractive power. It burns in chlorine, and the circumstances attending its combustion are very similar to those attending the combustion of the diamond in oxygen. Crystallized boron is not acted upon by any of the acids, and its powder is beginning to be used for diamond dust in the arts.

A new Gun Cotton is made by placing newly prepared common gun cotton in a saturated solution of chlorate of potash, allowing it to remain about fifteen minutes. It is then carefully pressed in folds of clean linen and dried at a temperature of 150 degrees. The new cotton has been compared with the common, with the following results: A charge of nine grains of the common cotton sent a ball from a pistol half way through a yellow pine board an inch in thickness, at a distance of twenty feet; the same pistol was then fired with two grains of the new cotton, and it was shattered to pieces; but a charge of one grain in another pistol was sufficient to drive a ball entirely through the board at the same distance.

DISCOVERY IN ELECTRICITY. — Dr. C. G. Page, of Washington, has discovered that positive electricity will extinguish the flame of a lamp, and negative electricity will increase it. When the flame of about two inches' height is charged positively from a powerful machine, it is rapidly shortened to total extinction. When the flame is charged negatively, it is immediately enlarged, a portion of it being impelled down around the wick tube for the distance of an inch, and a portion also elongated above. This discovery, it is thought, may serve to throw some light on the many unsolved caprices of lightning. — *Exchange*.

Intelligence.

ESSEX COUNTY TEACHERS' ASSOCIATION. — The thirtieth semiannual meeting of the Essex County Teachers' Association was held at the Universalist Church, Gloucester, on Friday and Saturday, the 16th and 17th of this month. The Association met at 10 o'clock, A. M., and, in the absence of the President, was called to order by the Vice President, Mr. Todd, of Newburyport. Prayer was offered by Rev. Mr. Mellen, of Gloucester. The record of the last meeting was read by the Secretary. On motion,

the second resolution on the programme, relating to "the advantages of an *exact* and *rigid* system, both in regard to recitations and deportment," was taken up for discussion. The President called upon Henry Moore, Esq., of Lynn, to open the discussion. He stated that one great object of our school system should be to secure that mental and moral discipline which would follow the individual through all the relations of after life. He thought that owing to the employment in many of our schools of persons without scholarly attainments, the custom of branching out in a loose and discursive manner, and touching upon almost everything else, except the subject under consideration, was too prevalent. Under such a course of instruction, scholars left the recitation with a confused idea of everything, and a definite idea of nothing. Such a system made loose and illogical reasoners, and was one cause of such social evils as Spiritualism. It was said of Gen. Jackson, that he had schooled himself to such exactness, that he was seldom, if ever, known to interline or make an erasure in any of his communications. This stern and rigid discipline was the secret of his success. The same might be said of Napoleon.

Mr. Gleason, of Danvers, said that he should dissent from the gentleman who had just taken his seat. He was in favor of branching out from the text-book. The teacher should not be confined to text-books, for very many of them are imperfect. Then it was impossible to bring the scholars in all our different grades of schools to the same exact and rigid standard. Every teacher must have a system of his own.

Mr. Boynton followed on the same side. He thought the resolution indefinite, and that the gentleman who opened the discussion did not define his position very clearly. But if he understood the resolution, he was opposed to it. He supposed the gentleman who advocated the resolution would have every scholar go out of, and come into, the school-room with his hands folded in a very precise manner; he would have no whispering, and perfect recitations. This would be too laborious a work for the teacher. It was requiring too much of the scholar. Suppose a teacher in a primary school should attempt this exact and rigid system, how would she come out? He did not believe in this rigid system — he thought frigid would be a more appropriate term.

Mr. Morrison said that when the Indian warrior wished to shoot the highest, he was wont to aim at the sun. So the teacher who would be most successful must set before him a perfect standard. He may not attain perfection, but that is no reason why he should not strive after it. It was not the intention of the resolution that every scholar should be brought to the same standard. Nor did the gentleman who advocated the resolution object to the introduction of illustration, provided it had a direct and logical bearing upon the subject.

Mr. Moore rose again to the defence of his positions. He said that the first gentleman who opposed his resolution, represented him as in favor of confining scholars strictly to the text-book, but he had assumed no such position. All he claimed was that when illustration was introduced, it should be pertinent to the subject in question; that matters entirely foreign to the subject, and having no logical bearing upon it, should not be introduced. Such a course was disastrous to true scholarship. The next gentleman on the negative thought "that it would be impossible to bring all scholars and all grades of schools up to the same standard;" for his own part he had not contended for anything of the kind, and did not know of any one who had. He believed in every teacher having a system of his own, but, in whatever system he adopted, requiring a rigid exactness. It was better to teach *one* thing right than a *thousand* things wrong. The gentleman on the negative thought this would require labor and toil. He expected it would. There was nothing worth possessing in the world, which did not require labor and toil. It was written against every son and daughter of Adam, "In the sweat of thy brow shalt thou eat thy bread." It is easy to slide down hill, but ascent requires effort. Longfellow understood this when he wrote his "Excelsior."

Phillips Academy at Andover and at Exeter were examples of that exact and rigid

system which he advocated. Many scholars who, when under Mr. Taylor's system at Andover, complained bitterly of its rigidity, returned, a few years after, to thank him for it. It is the only true system. It exerts a discipline which follows the individual through all the relations of life, as the arbiter of his destiny.

Mr. Hills, of Danvers, said that he understood the resolution to advocate a thorough and systematic course of training, and understanding it thus he was decidedly in favor of the resolution. He did not know who framed the resolution, but he thanked him for it. When the gentleman referred to Mr. Taylor, he knew what he meant. He was in favor of that exactness which characterized his system, but he would not advise any one to attempt to be Mr. Taylor. Let him be himself, and whatever system he adopted carry it out with thoroughness. He thought this was beyond dispute; it should be admitted by every one.

Mr. Boynton rejoined. This exact and rigid system might do for some schools, but it would not do for all. He would not like to be considered as opposed to exactness, but he was opposed to anything like rigidity or stiffness. He brought up Daniel Webster as an example of one who did not follow this system in his college course, but who, in after life, surpassed all his classmates.

The Hon. John Batchelder, of Lynn, said that he would advocate the resolution in a few practical remarks, although, coming from a *young* man like himself, he supposed they would have but little weight. He said that when he first noticed the *warmth* of the antagonists in this discussion, he almost feared that Congressional scenes would be enacted over again, but as the contest proceeded, the smoke of battle seemed to roll away, and the harsh and discordant notes of war to subside. The peaceful state of the atmosphere had led him to venture forth.

He was in favor of an exact, and, if you please, a rigid system. He would have the teacher of the *primary* school, when she commenced the first lesson, teach it with exactness and precision. In giving the elementary sounds of the *first* letter of the alphabet, he would have them taught thoroughly, correctly, and so on through all the departments of learning. He was opposed to that rambling method pursued by some teachers, who while hearing a class in grammar, would branch off upon geology, or something else which had nothing to do with the subject. In regard to discipline, he would impress every scholar with the idea that what the teacher required was *right*, and that being right, there was no appeal.

At half-past 2 o'clock, P. M., the Association came together and listened to an interesting and instructive lecture from the Rev. Alonzo Quint, of Roxbury. Subject, — "Home Education." A discussion followed, on the subject of the lecture, in which Mr. Hills of Danvers, Mr. Easton of Gloucester, Rev. Mr. Mellen of Gloucester, Prof. Crosby of Salem, Mr. Babson of Gloucester, and others, took part.

At half-past 7 o'clock, P. M., B. W. Putnam, Esq., of Boston, delivered an able and appropriate address, upon "The Responsibilities and Duties of Parents."

On Saturday morning, at 8 o'clock, the subject assigned for discussion being presented, remarks were made by Prof. Crosby, Principal of the State Normal School, Salem, Messrs. Boynton of Lynn, Soule and Stanton of Newburyport, Valentyne of Marblehead, Root, Gleason, and Gay of Danvers, and Shores of Haverhill. A vote being taken upon the question, it was unanimously decided in the affirmative.

The following resolution was presented by Prof. Crosby, with appropriate remarks: —

Resolved, That the profession of the Educator, like every other liberal profession, requires periodicals devoted to its peculiar objects; that a good professional journal is of essential value to the Teacher who would not be left behind in the educational progress of the age; and that the "Massachusetts Teacher," owned and conducted, as it is, entirely by the Teachers of Massachusetts, and free from all interference or admixture of individual interest, is eminently worthy of hearty support from all the Teachers of the State, — by their own subscription, by effort to secure the subscription of others, and by contribution to its pages.

D. B. Hagar, President of the Massachusetts Teachers' Association, followed, giving a brief history of the "Massachusetts Teacher," answering objections sometimes urged against it, explaining its present position and prospects, and closing with an earnest appeal to the teachers of Essex County to do their part faithfully in sustaining and improving this publication. On motion of Mr. Boynton, of Lynn, the Association voted to adopt the resolution, and to have it published in the "Massachusetts Teacher" and the various newspapers of Essex County.

The usual vote of thanks was passed, to the citizens of Gloucester for their generous hospitality; to the Universalist society for the use of their church; to the lecturers for their able and instructive addresses; and to the Eastern Railroad for the reduction of fare. After singing "Old Hundred" the Association adjourned.

WISCONSIN. — From the last annual report of the Secretary of State in Wisconsin, it appears that the school fund of the State now amounts to \$3,090,596, the income from which is \$246,863. The University fund amounts to \$316,566, and the income thereon to \$22,000.

NATICK. — At a town meeting recently held in Natick, a vote, by which the appropriation for the High School was cut down, was re-considered and the salaries continued as before.

J. W. TUCK, Esq., has resigned his position as sub-master in the Dwight School. We can wish Mr. Tuck no better, than that, in his new vocation, he may enjoy the same uninterrupted prosperity that has always attended him in more than fourteen years' deservedly successful labor as teacher.

MR. HORATIO F. ALLEN, lately of the Ashland High School, has been appointed teacher of the Grammar School in Newtonville, in place of Mr. E. Woodward, resigned. Salary, \$700.

Prof. C. C. FELTON, of Cambridge, has again sailed for Athens for the improvement of his health, and to continue his researches in regard to the antiquities of Greece.

MR. CHARLES HUTCHINS, formerly Master of the Benefit St. Grammar School, Providence, R. I., has been elected Sub-Master of the Dwight School in this city. The friends of education in Boston may well congratulate themselves on securing the services of such a faithful and efficient teacher.

The successor of Mr. Hutchins is Mr. N. W. DeMunn, of the Grammar School, in Boonton, N. J.

MR. NATHANIEL G. BONNEY, late Principal of the High School, Edgartown, and Mr. James L. Stone, of Providence, R. I., are about to open an English and Classical School in Foxboro'. This town has recently erected a fine building for a High School, and its free use has been granted to these gentlemen, for a term of years. We wish them all success in their undertaking.

☞ Subscribers will receive their bills with the present number of the *Teacher*, and a prompt remittance is expected.